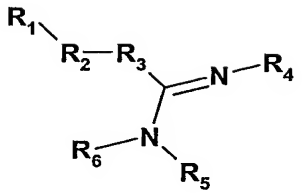
Claims

1. A compound of formula I

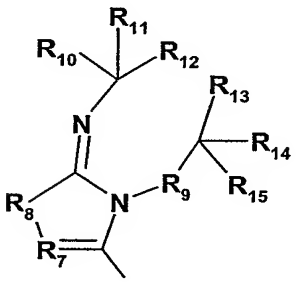


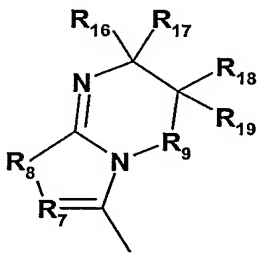
I

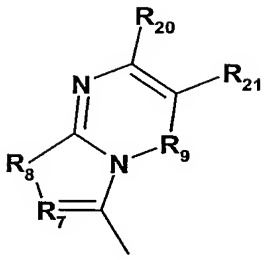
wherein

R_1 is a residue of formula (a), (b) or (c)

(a) (b) (c)







R_2 is $-(CR_{22}R_{23})_{1-3}-$ or -C(O)-;

each of R_3 and R_8 independently is S; O; or NR_{24};

each of R_4 and R_5 independently is optionally R_{25}-substituted C_3-C_{12} cycloalkyl, C_1-C_{12} alkyl or saturated C_{8-12} polycyclic residue; or optionally R_{26}- and/or R_{27}-substituted aryl, arylC_{1-4}alkyl or heteroaryl; wherein up to 4 carbon atoms of R_4 and/or R_5 are optionally substituted by S, O or NR_{24};

R_6 is H; C_1-C_6 alkyl; C_3-C_6 cycloalkyl; or optionally R_{26}- and/or R_{27}-substituted aryl, arylC_{1-4}alkyl or heteroaryl;

R_7 is CR_{28} or N;

R_9 is a direct bond; $-(CR_{22}R_{23})_{1-2}-$; or NR_{24};

each of R_{10-23} and R_{28} independently is H; F; Cl; Br; C_1-C_6 alkyl; C_2-C_6 alkoxyalkyl; C_1-C_6 halogenoalkyl; C_3-C_6 cycloalkyl; optionally R_{26}- and/or R_{27}-substituted aryl or heteroaryl; $CONR_{29}R_{30}$; $COOR_{29}$; CN; NO_2; or OR_{31}; or

two of R_{10-19} which are attached to the same carbon atom, together with the carbon atom to which they are attached, form a 3-7 membered nonaromatic ring optionally containing up to two heteroatoms selected independently from N, O and S; or

R_{17} and R_{18}, together with the C atoms to which they are attached, form a 4-7 membered nonaromatic ring optionally containing up to two heteroatoms selected independently from N, O and S; or

R_{20} and R_{21}, together with the carbon atoms to which they are attached, form an optionally R_{26}- and/or R_{27}-substituted aryl or heteroaryl;

each of R_{24}, R_{29} and R_{30} independently is H; C_1-C_6 alkyl; C_2-C_6 alkoxyalkyl; C_1-C_6 halogenoalkyl; C_3-C_7 cycloalkyl; or optionally R_{26}- and/or R_{27}-substituted aryl, arylC_{1-4}alkyl or heteroaryl;

R_{25} represents 1 to 4 substituents each independently having one of the significances given for R_{10-23} above;

R_{26} represents 1 to 4 substituents each independently selected from C_1-C_6 alkyl; C_1-C_6 hydroxyalkyl; C_2-C_6 alkoxyalkyl; C_1-C_6 halogenoalkyl; C_3-C_6 cycloalkyl; C_2-C_6 alkenyl; C_3-C_6 cycloalkenyl; C_2-C_6 alkynyl; aryl; heteroaryl; heteroaryl N-oxide ; F; Cl; Br; I; OH; OR_4; $CONH_2$; $CONHR_4$; $CONR_4R_4$;$OC(O)R_4$; $OC(O)OR_4$; $OC(O)NHR_4$; $OC(O)NR_4R_4$; OSO_2R_4; COOH; $COOR_4$; CF_3; CHF_2; CH_2F; CN; NO_2; NH_2; NHR_4; NR_4R_4; $NHC(O)R_4$; $NR_4C(O)R_4$; $NHC(O)NHR_4$; $NHC(O)NH_2$; $NR_4C(O)NHR_4$; $NR_4C(O)NR_4R_4$; $NHC(O)OR_4$; $NR_4C(O)OR_4$; $NHSO_2R_4$; $N(SO_2R_4)_2$; $NR_4SO_2R_4$; SR_4; $S(O)R_4$; SO_2R_4; $Si(CH_3)_3$ and $B(OC(CH_3)_2)_2$;

R_{27} represents two adjacent substituents which form an annulated 4-7 membered nonaromatic ring optionally containing up to two heteroatoms selected independently from N, O and S;

R_{31} is C_1-C_6 alkyl; C_3-C_7 cycloalkyl; optionally R_{26}- and/or R_{27}-substituted aryl, arylC_{1-4}alkyl or heteroaryl; or CF_3;

or a pharmaceutically acceptable salt thereof.

2. A compound according to claim 1 which is selected from 1,3-Dicyclohexyl-2-(5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea, 1-Cyclohexyl-3-cyclopentyl-2-(5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea,1-Cycloheptyl-3-cyclohexyl-2-(5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea,1,3-Dicycloheptyl-2-(5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea, 1-Cyclohexyl-3-cyclooctyl-2-(5,6-dihydro-

imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea,1,3-Dicyclohexyl-2-(6,6-dimethyl-5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea,1,3-Dicyclooctyl-2-(5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea and 1,3-Dicycloheptyl-2-(6,6-dimethyl-5,6-dihydro-imidazo[2,1-b]thiazol-3-ylmethyl)-isothiourea.

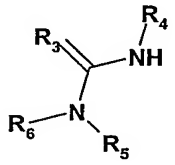
3. A pharmaceutical composition comprising a compound according to claim 1 in free form or in a pharmaceutically acceptable salt form in association with a pharmaceutically acceptable diluent or carrier therefor.

4. Use of a compound according to claimed in claim 1 in free form or in a pharmaceutically acceptable salt form, for the manufacture of a medicament to prevent or treat disorders or diseases mediated by interactions between chemokine receptors, acute or chronic transplant rejection, inflammatory diseases, autoimmune diseases or proliferative diseases.

5. Use of a compound according to claimed in claim 1 in free form or in a pharmaceutically acceptable salt form, for the manufacture of a medicament to prevent or inhibit tumor invasiveness, symptoms associated with tumor growth, metastatic spread of tumours, tumor-associated angiogenesis or growth of micrometastases.

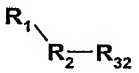
6. Use of a compound as claimed in claim 1 or in claim 2, or a pharmaceutically acceptable salt thereof, for the manufacture of a medicament in preventing or combating an infectious diseases, in particular viral infections or progression of AIDS.

7. A process for preparing a compound of formula I comprising reacting a compound of formula II



II

with a compound of formula III



III

wherein R_1 to R_6 are as defined in claim 1 and R_{32} is a leaving group;

and optionally converting a resultant compound of formula I obtained in free form to a salt form or vice versa.

8. A pharmaceutical combination comprising a compound according to claim 1 or claim 2 in free form or in a pharmaceutically acceptable salt form and a further agent selected from immunosuppressive, immunomodulating, anti-inflammatory, antiproliferative, antineoplatic, chemotherapeutic, anti-infective, anti-viral, and antibiotic agents, and agents for the treatment of acute myeloid leukemia.

9. Combination according to claim 8 comprising an antiretroviral agent, in particular an anti-HIV agent.

10. Use of a combination according to claim 9 for the manufacture of a medicament for preventing or combating an infectious disease, in particular viral infection or progression of AIDS.

11. A method of treatment or prevention of any of the following conditions:

i) disorders or diseases mediated by interactions between chemokine receptors,

ii) acute or chronic transplant rejections,

iii) inflammatory or autoimmune diseases,

iv) proliferative diseases,

v) symptoms associated with tumor invasiveness or tumor growth,

vi) metastatic spreads of tumours, tumor-associated angiogenesis and growths of micrometastases,

vii) infectious diseases, in particular viral infections, in particular binding or entry of HIV virus, or progression of AIDS,

comprising administering to said subject a therapeutically effective amount of a compound according to claim 1 or claim 2, or a or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition according to claim 3.